

USSN: 10/014,700
Atty. Docket No.: 10041/3
Amdt. dated April 29, 2004
Reply to Office Action of January 30, 2004

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Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A film structure comprising, as at least one surface layer, a porous membrane comprising an extruded, biaxially stretched film of high density polyethylene (HDPE) and particles of a material incompatible with said HDPE selected from the group consisting of an inorganic cavitating agent, polystyrene and polybutylene terephthalate (PBT), wherein:

said membrane layer has a meshed network of HDPE fibers and striations of layers coplanar with the plane of the membrane layer,

said membrane layer is porous in a direction perpendicular to the plane of the film,

said membrane layer has a void content of at least 20%,

said HDPE has (1) a molecular weight of less than 250,000, (2) an intrinsic viscosity of less than 5 dl/g, and (3) an ASTM D 1238-86 condition E melt index of from 0.4 to about 4 grams/10 minutes, and

said incompatible material is included within said porous membrane in an amount of from 4 wt% to 24 wt%, based on the total weight of said porous membrane.

Claim 2 (original): A film structure according to claim 1, wherein said incompatible material is calcium carbonate.

Claim 3 (original): A film structure according to claim 1, wherein said surface membrane layer is treated with plasma at a temperature below the melting point of said HDPE.

Claim 4 (previously presented): A film structure according to claim 1, which is completely porous from one surface of the film to the other surface of the film.

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Claim 5 (previously presented): A filter, comprising the film structure according to claim 4.

Claim 6 (original): A film structure according to claim 1, wherein said membrane layer has a void content of 20-85%.

Claim 7 (original): A film structure according to claim 6, wherein said membrane layer has a void content of at least 50%.

Claim 8 (canceled).

Claim 9 (previously presented): A film structure according to claim 4, comprising a monolayer of film.

Claim 10 (previously presented): A film structure according to claim 1, comprising at least one noncavitated backing layer.

Claim 11 (previously presented): A film structure according to claim 1, wherein the porous membrane has a lofting value of at least 3.

Claim 12 (previously presented): A transdermal patch, comprising the film structure of claim 1.

Claim 13 (previously presented): A film structure according to claim 1, wherein the porous membrane is free of residual plasticizer.

Claim 14 (currently amended): A film structure, comprising (i) a porous surface layer comprising an extruded, biaxially stretched film of high density polyethylene (HDPE) and particles of a material incompatible with said HDPE selected from the group consisting of an inorganic cavitating agent, polystyrene and polybutylene terephthalate (PBT), (ii) a porous core

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layer comprising an extruded, biaxially stretched film of HDPE and particles of a material incompatible with said HDPE selected from the group consisting of an inorganic cavitating agent, polystyrene and polybutylene terephthalate (PBT), and (iii) a noncavitated backing layer comprising polypropylene or polyethylene, wherein:

 said porous surface layer (i) and porous core layer (ii) have a meshed network of HDPE fibers and striations of layers coplanar with the plane of the surface layer (i) and core layer (ii), respectively,

 said porous surface layer (i) and porous core layer (ii) are porous in a direction perpendicular to the plane of the film,

 said porous surface layer (i) and porous core layer (ii) independently have a void content of at least 20%,

 said HDPE of said porous surface layer (i) and porous core layer (ii) independently has (1) a molecular weight of less than 250,000, (2) an intrinsic viscosity of less than 5 dl/g, and (3) an ASTM D 1238-86 condition E melt index of from 0.4 to about 4 grams/10 minutes, and

 the amount of said incompatible material included within said porous surface layer (i) and porous core layer (ii) is independently from 4 wt% to 24 wt%, based on the total weight of said porous surface layer (i) and porous core layer (ii), respectively.

Claim 15 (previously presented): A film structure according to claim 14, wherein said porous surface layer (i) and porous core layer (ii) are free of residual plasticizer.

Claim 16 (new): A film structure according to claim 1, wherein said incompatible material is included within said porous membrane in an amount of from 4 wt% to 18 wt%, based on the total weight of said porous membrane.

Claim 17 (new): A film structure according to claim 14, wherein said incompatible material is included within said porous membrane in an amount of from 4 wt% to 18 wt%, based on the total weight of said porous membrane.

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Claim 18 (new): A film structure according to claim 1, wherein said incompatible material is an inorganic cavitating agent.

Claim 19 (new): A film structure according to claim 14, wherein said incompatible material is an inorganic cavitating agent.

Claim 20 (new): A film structure according to claim 14, wherein said inorganic cavitating agent is calcium carbonate.